What is claimed is:

1. A purified protein comprising an amino acid sequence selected from SEQ ID NOs:1-49.

2. An isolated polynucleotide comprising a nucleic acid sequence encoding the protein of claim 1 or the complement of the polynucleotide.

3. A composition comprising a polynucleotide of claim 2 and a reporter molecule.

4. An isolated polynucleotide comprising a nucleic acid sequence selected from SEQ ID NOs:50-98 and the complement of the polynucleotide.

5. A vector containing the polynucleotide of claim 2.

6. A host cell containing the vector of claim 5.

7. A method for using a polynucleotide to produce a protein comprising:

    a) culturing the host cell of claim 6 under conditions for the expression of the protein; and

    b) recovering the protein from the host cell culture.

8. A method for using a polynucleotide to detect expression of a nucleic acid in a sample, the method comprising:

    a) hybridizing the polynucleotide of claim 2 to nucleic acids of the sample, thereby forming a hybridization complex; and

    b) detecting hybridization complex formation, wherein complex formation indicates the expression of the polynucleotide in the sample.

9. The method of claim 8 wherein the polynucleotide is attached to a substrate or bonded to the surface of a microarray.

10. The method of claim 8 wherein the nucleic acids of the sample are amplified prior to hybridization.

11. A method of using a polynucleotide to screen a plurality of molecules to identify a ligand, the method comprising:

    a) combining the polynucleotide of claim 2 with a plurality of molecules under conditions to allow specific binding; and

    b) detecting specific binding, thereby identifying a ligand which specifically binds the polynucleotide.

12. The method of claim 11 wherein the molecules are selected from DNA molecules, RNA molecules, peptide nucleic acids, artificial chromosome constructions, peptides, and transcription factors.

13. A method for diagnosing a disease associated with gene expression in a sample containing nucleic acids, the method comprising:

a) hybridizing a polynucleotide of claim 2 to nucleic acids of the sample under conditions to form a hybridization complex,

b) comparing hybridization complex formation with standards, thereby diagnosing the disease.

14. The method of claim 13 wherein expression is diagnostic of cancer or immune response.

15. A composition comprising the protein of claim 1 and a pharmaceutical carrier or a labeling moiety.

16. A method for using a protein to screen a plurality of molecules to identify a ligand, the method comprising:

a) combining the protein of claim 1 with the molecules under conditions to allow specific binding; and

b) detecting specific binding, thereby identifying a ligand which specifically binds the protein.

17. The method of claim 16 wherein the molecules are selected from DNA molecules, RNA molecules, peptide nucleic acids, peptides, pharmaceutical agents, proteins, mimetics, agonists, antagonists, antibodies, immunoglobulins, inhibitors, and drugs.

18. A method of using a protein to prepare and purify antibodies comprising:

a) immunizing a animal with the protein of claim 1 under conditions to elicit an antibody response;

b) isolating animal antibodies;

c) attaching the protein to a substrate;

d) contacting the substrate with isolated antibodies under conditions to allow specific binding to the protein;

e) dissociating the antibodies from the protein, thereby obtaining purified antibodies.

19. An antibody which specifically binds a protein of claim 1.

20. A method for using an antibody to detect protein expression in a sample, the method comprising:

a) combining the antibody of claim 19 with a sample under conditions to form antibody:protein complexes; and

b) detecting complex formation with standards, wherein detection indicates expression of the protein in the sample.